

Title (en)

DETERMINING EXTRACELLULAR ANALYTE CONCENTRATION WITH NANOPLASMONIC SENSORS

Title (de)

BESTIMMUNG DER KONZENTRATION VON EXTRAZELLULÄREN ANALYTEN MIT NANOPLASMONISCHEN SENSOREN

Title (fr)

DÉTERMINATION D'UNE CONCENTRATION D'ANALYTE EXTRACELLULAIRE AVEC DES CAPTEURS NANOPLASMONIQUES

Publication

EP 3311140 B1 20201125 (EN)

Application

EP 16812602 A 20160620

Priority

- US 201562181939 P 20150619
- US 2016038308 W 20160620

Abstract (en)

[origin: WO2016205775A1] Methods and systems for determining extracellular concentration data of an analyte are disclosed. A method for determining extracellular concentration data of an analyte includes receiving sensor data from one or more arrays of functionalized plasmonic nanostructures on a localized surface plasmon resonance imaging chip in contact with a fluid containing at least one living cell for a plurality of times, determining intensity data for the one or more arrays, determining fractional occupancy based on the intensity data, and determining extracellular concentration data based on the fractional occupancy data. A system for determining extracellular concentration data of an analyte includes a LSPRi chip, a sensor component, an intensity component, a fractional occupancy component, a concentration component, and a processor to implement the components.

IPC 8 full level

G01N 21/47 (2006.01); **G01N 21/552** (2014.01); **G01N 33/543** (2006.01)

CPC (source: EP US)

G01N 21/554 (2013.01 - EP US); **G01N 21/6458** (2013.01 - EP US); **G01N 21/648** (2013.01 - EP US); **G01N 33/54373** (2013.01 - EP US); **G01N 21/274** (2013.01 - EP)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

WO 2016205775 A1 20161222; EP 3311140 A1 20180425; EP 3311140 A4 20181226; EP 3311140 B1 20201125; EP 3311140 B8 20210421; ES 2862905 T3 20211008; US 10761028 B2 20200901; US 2016370290 A1 20161222; US 2020158639 A1 20200521

DOCDB simple family (application)

US 2016038308 W 20160620; EP 16812602 A 20160620; ES 16812602 T 20160620; US 201615186742 A 20160620; US 202016747702 A 20200121